VPDES PERMIT FACT SHEET

This document gives pertinent information concerning the reissuance of the VPDES permit listed below. This permit is being processed as a *Minor, Industrial permit*. The facility serves as a bulk petroleum product storage and distribution center. The industrial discharge originates from process wastewater and storm water that collects within the Aboveground Storage Tank containment area and is treated by an oil/water separator and sedimentation basin prior to discharging to the James River. This permit action consists of evaluating effluent data, permit limitations and monitoring requirements and revising and updating permit special conditions. The SIC Codes for this facility are 4226 (Special Warehousing and Storage, Not Elsewhere Classified) and 2951 (Asphalt Paving Mixtures and Blocks).

1. Facility Name Applicant Address:

   Kinder Morgan Southeast Terminals – Richmond 2
   4110 Deepwater Terminal Road
   Richmond, Virginia 23234

Facility Contact Name:	Patrick Davis
Title:	Environmental Health and Safety Manager
Mailing Address:	2000 Trenton Avenue Richmond, VA 23234
Telephone Number:	804-743-5778
Email Address:	JPatrick_Davis@kindermorgan.com

2. Permit No. VA0058378 Existing Permit Expiration Date: *07/13/2013*

3. Owner Name and Address:

   Kinder Morgan Southeast Terminals, LLC
   1100 Aldermand Drive, Suite 200
   Alpharetta Georgia, 30005
   Telephone Number: 770-751-4000

4. Application Complete Date: Pending (Minor additions are needed on Form 2C and concurrence on hydrostatic testing coverage under GP)

   Permit Drafted By:
   Steve E. Artrip Steve E. Artrip Date: March 14, 2013
   Southwest Regional Office

   Reviewed By: Curt Linderman Date: March 18, 2013
   Piedmont Regional Office

   Public Comment Period Dates: from _____ to _____

5. | | |
   |---|---|
   | Receiving Streams Name: | James River |
   | Basin: | James River (lower) |
   | Subbasin: | NA |
   | Section: | 1 |
   | Class: | II |
   | Special Standards: | bb (a,z,ESW-11)***** |
   | River Mile: | 2-JMS105.76 |

7-Day, 10-Year Low Flow	(7Q10)	455 MGD**
1-Day, 10-Year Low Flow	(1Q10)	400 MGD**
30-Day, 5-Year Low Flow	(30Q5)	667 MGD**
30 Day, 10-Year Low Flow	(30Q10)	596 MGD**
7-Day, 10-Year High Flow	(7Q10)	1218 MGD**
1-Day, 10-Year High Flow	(1Q10)	1023 MGD**
Harmonic Mean Flow(HM)	2062 MGD**	

Tidal: YES**

On 303(d) list: YES

***** In accordance with the Virginia Water Quality Standards (9VAC25-260-310) - Special Standards and Scenic River Listings, Special Standards "a", "z" and "ESW-11" do not apply to the segment of the river basin to which this facility discharges.

****** The James River is tidally influenced at the discharge point, rivermile 105.76. Flow frequencies cannot be determined for tidal waters and the drought flows presented above are for informational purposes only. The permittee submitted a mixing model using Cormix for the discharge to the James River in August 1994. An allocated impact zone (acute mixing zone) with a width of 13.3 m and total length of 22.26 m was established. The mixing zone analysis did not establish a regulatory mixing zone for acute and chronic criteria but in a letter to the owner which was dated August 24, 1994 DEQ concurred on an acute mixing ratio of 20:1 for acute toxicity. The standard default ratio of 50:1 will be used for chronic toxicity as presented in Guidance Memorandum No. 00-2011, *Guidance on Preparing VPDES Permit Limits*. *See Attachment No. 1* for the details of the Flow Frequency Determination Memorandum dated February 1, 2013, prepared by Jennifer V. Palmore, P.G. Also contained in *Attachment No. 1* is the output from the Cormix mixing model and DEQ's concurrence on the model.

6. Operator License Requirements:

   A licensed operator is not required because, in accordance with Attachment A of Guidance Memorandum 07-2012, *Assigning Operator License Classes*, the retention basin and oil/water separator that serve as treatment for this facility's wastewater are not considered to be forms of biological, chemical, or physical treatment as intended by the requirements contained in 9VAC25-31-200.C of the VPDES Permit Regulation.

7. Reliability Class: - Not Applicable.

8. Permit Characterization:

   (X)Private ( )Federal ( )State ( )POTW ( )PVOTW

   ( ) Possible Interstate Effect ( ) Interim Limits in Other Document

9. Description of the Facility/Wastewater Treatment System:

   The Kinder Morgan, Richmond 2 Terminal is a storage and distribution center for bulk petroleum products including gasoline, ethanol, naphtha, petroleum distillates, kerosene, diesel fuel, heating oil and asphalt products. All process wastewater from the loading rack area is routed through an oil/water separator which includes activated clay and carbon treatment prior to entering a sediment basin located adjacent to the James River. Runoff from the other non-rack and tank fields enters the sediment basin directly. Very small quantities of condensate are produced by the air compressors in the tool shed and boiler house and discharged to the sediment basin. Outfall 001 discharges to the James River via a subsurface discharge pipe. A schematic line drawing and site layout are included in *Attachment No. 2*.

   The Kinder Morgan, Richmond 2 Terminal is also registered with the DEQ as an Above-Ground Storage Tank (AST) facility, (ID 4021425). The latest inspection dated 5/24/2011 accounted for 17 AST tanks with a

capacity of greater than 1 million gallons. The inspection indicated that the facilities were well maintained with regards to inventory control, piping, leak detection and secondary containment. Routine tank inspections and the training programs were up to date at the time of the inspection. An Oil Discharge Contingency Plan (VA FRP 091) for the terminal was submitted to the Department by letter dated August 14, 2008. Groundwater monitoring of the site is required for those facilities storing greater than 1 million gallons of product in accordance with AST regulation 9VAC-25-91-10 et seq.

OUTFALL NUMBER	DISCHARGE SOURCE	TREATMENT	FLOW
001	Process wastewater and storm water runoff collected within AST containment berm, loading rack and other non-rack areas.	Oil/water separator and Sedimentation basin.	90th percentile 30-day average flow 10/2008-01/2013 = 0.21 MGD

10. Sludge Use or Disposal:

    Not Applicable

11. Discharge Location Description:

    Name: Drewrys Bluff, VA Quadrangle
    Map Number: 99-B

    Outfall 001: Latitude 37° 28' 17" Longitude 77° 25' 25"

    A location map is included as *Attachment No. 3.*

12. Material Storage:

    Gasoline, ethanol, naphtha, petroleum distillates, kerosene, diesel fuel, heating oil and asphalt products are processed at the facility.

13. Ambient Water Quality Information:

    James River: The receiving stream is designated as tidal freshwater in the Virginia Water Quality Standards; therefore, the freshwater Aquatic Life Use criteria should be applied. The area is considered as Migratory Spawning and Nursery habitat.

    During the 2010 305(b)/303(d) Integrated Water Quality Assessment, the James River was assessed as a Category 5A water ("A Water Quality Standard is not attained. The water is impaired or threatened for one or more designated uses by a pollutant(s) and requires a TMDL 303(d) list."). The river was impaired of the Recreation Use due to E. coli violations, of the Aquatic Life Use due to inadequate submerged aquatic vegetation (SAV), excessive chlorophyll_a, and low dissolved oxygen, and of the Fish Consumption Use due to a VDH advisory for PCBs. In addition, mercury and kepone are considered non-impairing observed effects. The Wildlife Use was fully supporting. *See Attachment No.4 for the 2010 Fact Sheets for 303(d) listed impairments*.

    During the draft 2012 Assessment, the receiving stream was considered Category 5D ("The Water Quality Standard is not attained where TMDLs for a pollutant(s) have been developed but one or more pollutants are still causing impairment requiring additional TMDL development.") The river was impaired of the Recreation Use due to E. coli violations, of the Aquatic Life Use due to inadequate submerged aquatic vegetation (SAV), excessive chlorophyll_a, low dissolved oxygen, and inadequate benthic community, and of the Fish Consumption Use due to a VDH advisory for PCBs. In addition, mercury and kepone are considered non-impairing observed effects. The Wildlife Use was fully supporting. *See Attachment No. 4 for the 2012 Fact Sheets for 303(d) listed impairments.*

See Attachment No. 4 for ambient water quality data from monitoring station 2-JMS104.16. The station is located on the James River at buoy 166 and is approximately 1.6 mile downstream of the discharge.

14. Antidegradation Review & Comments:

Tier I (X) Tier II ___ Tier III _____

The State Water Control Board's Water Quality Standards includes an antidegradation policy (9VAC25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The James River is impaired as described in Item 13. above and listed in the current 2010 305(b)/303(d) Integrated Water Quality Assessment Report; the James River is considered a Tier 1 water. The Richmond-Crater Water Quality Management Plan allocates BOD and ammonia nitrogen in order to maintain a minimum dissolved oxygen of 5.0 mg/l in the river. *See Attachment No. 1, Flow Frequency Determination/303 (d) Status Memorandum* by Jennifer V. Palmore, P.G.

15. Site Inspection:

Charles Stitzer, Environmental Inspector conducted an inspection on September 15, 2009. The facility was in good order and in compliance with its VPDES Permit VA0058378. *See Attachment No. 5* for the detailed report.

16. Effluent Screening & Limitation Development:

During the current permit cycle the applicant collected samples in accordance with VPDES Permit, VA0058378 which included Flow, pH, Total Petroleum Hydrocarbons (TPH-GRO, TPH-DRO) and Total Organic Carbon (TOC). The concentrations reported during the term of the permit are well within the established permit limitations. (*See Attachment No. 6 for a summary of the discharge monitoring report data*).

Since the facility receives, stores and distributes both gasoline and non-gasoline petroleum products, it is necessary to compare those data submitted with the application to constituents named as indicators of contamination of both gasoline and non-gasoline products in the VAG83 General Permit Fact Sheet. Elevated levels of benzene, toluene, ethylbenzene and xylenes (BTEX) are considered to be indicators of gasoline contaminated waters. Outfall 001 was also sampled for Oil and Grease Method 1644A, Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene. The test results indicated that none were present above QL's which are less than the respective limitations found in VAG83 General Permit for Petroleum discharges. (*See Attachment No. 6 for a summary of these data*).

Additionally, the permittee screened the effluent for the parameters believed present on EPA Application Form 2C, Parts A and B and all the parameters contained on DEQ's "Attachment A Water Quality Criteria Monitoring". (*See Attachment No. 6 for a summary of these data*).
Table 1 below represents a summary of those effluent sample test results which the Reporting Limit (RL) calculated by the laboratory was greater than the minimum Quantification Limit (QL) recommended by DEQ or the test results indicated a concentration greater than the QL used by the laboratory.

Table 1

POLLUTANTS OF CONCERN					
CHEMICAL	QUANTIFICATION LEVEL (µg/L)		REPORTING RESULTS (µg/L)	Effluent Concentration Used for DEQ Evaluation (µg/L)	Evaluation Type
	Recommended	Used			
Antimony, dissolved	1.4	10	<10	10	2
Arsenic, dissolved	1.0	10	<10	10	1
Cadmium, dissolved	0.3	1	<1	1	1
Chromium III, dissolved	3.60	5	<5	5	1
Chromium VI, dissolved	1.60	10	<10	10	1
Copper, dissolved	0.50	10	<10	10	1
Lead, dissolved	0.50	5	<5	5	1
Nickel, dissolved	0.94	10	<10	10	1,2
Selenium, tot.recoverable	2.0	10	<10	10	1,2
Silver, dissolved	0.20	5	<5	5	1
Thallium, tot.recoverable	NA	10	<10	10	2
Zinc, dissolved	2.0	50	<50	50	1,2

Evaluation Types:

1) Water Quality Standards - Aquatic Life Evaluation (see below)
2) Water Quality Standards - Human Health Criteria Evaluation (see below)

Water Quality Criteria:

Since there is tidal influence to the James River at the discharge location, the typical mixing model for free flowing streams (Mixer Version 2.1.0) will not be used to evaluate mixing zones for this discharge. The permittee submitted a mixing model (Cormix) for the discharge to the James River in August 1994. The results of the model indicated an acute mixing zone with a width of 13.3 m and a total length of less than 22.26 m. The model did not establish a regulatory mixing zone but did provide an acute dilution factor of 20 since the effluent should be diluted to that extent within minutes of the discharge. The model was based on a flow of 0.288 MGD and remains valid as the 90th percentile average flows for the current permit were calculated at 0.21 MGD. Chronic and Human Health evaluations are based on the default factor of 50:1 per *Guidance Memorandum GM00-2011, Preparing VPDES Permit Limits*. (*See Attachment No. 1 for details of the mixing model*).

The parameters contained in *Table 1* above were identified as those with the greatest potential to cause toxicity to the aquatic life in the receiving stream or contravene human health criteria. Using DEQ's Excel spreadsheet MSTRANTI, (version 2b) acute, chronic and human health water quality criteria and wasteload allocations were calculated for each parameter (*See Attachment No. 7*). Since James River in the vicinity of the discharge is not considered a Public Water Supply waters only the Human Health criteria for "Other Waters" applies. When comparing the effluent concentration of each parameter used in the evaluation to the most limiting wasteload allocation (*See Table 2 below*) it was determined than no permit limits are necessary for these parameters and further statistical evaluations to establish permit limits are not necessary.

Table 2

POLLUTANTS OF CONCERN						
CHEMICAL	**QUANTIFICATION LEVEL (µg/L)**		**REPORTING RESULTS (µg/L)**	**Effluent Concentration Used for DEQ Evaluation (µg/L)**	**Most Limiting Wasteload Allocation (µg/L)***	**Limitation or Monitoring Needed?**
	Recommended	**Used**				
Antimony, dissolved	1.4	10	<10	10	32000 HH	NO
Arsenic, dissolved	1.0	10	<10	10	6800 A	NO
Cadmium, dissolved	0.3	1	<1	1	40 C	NO
Chromium III, dissolved	3.60	5	<5	5	2600 C	NO
Chromium VI, dissolved	1.60	10	<10	10	320 A	NO
Copper, dissolved	0.50	10	<10	10	180 A	NO
Lead, dissolved	0.50	5	<5	5	390 C	NO
Nickel, dissolved	0.94	10	<10	10	700 C	NO
Selenium, tot.recoverable	2.0	10	<10	10	250 C	NO
Silver, dissolved	0.20	5	<5	5	32 A	NO
Thallium, Tot.recoverable	NA	10	<10	10	24 HH	NO
Zinc, dissolved	2.0	50	<50	50	1600 A	NO

*
A = Acute Criteria
C = Chronic Criteria
HH = Human Health Criteria

Limitations and/or Monitoring Requirements:

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		MO. AVE.	WE. AVE.	MIN.	MAX.	FREQ.	SAMPLE TYPE
Flow (MGD)	NA	NA	NA	NA	NL	1 per Month	Estimate
pH	1	NA	NA	6.0 (SU)	9.0 (SU)	1 per Month	Grab
Total Organic Carbon (TOC)	2	NA	NA	NA	110 (mg/L)	1 per Month	Grab
Total Petroleum Hydrocarbons (TPH)	2	NA	NA	NA	15 (mg/L)	1 per Month	Grab

Basis for Effluent Limitations

1. Water Quality Standards
2. Best Professional Judgment (Technology Based)

Total Petroleum Hydrocarbons (TPH):
The 2013 permit limitation for TPH is based on Best Professional Judgment in accordance with current agency guidance (Permit Manual, Section IN-5, Pg.5). Please note that the required test methods for TPH include both GRO (gasoline range organics) and DRO (diesel range organics) which was addressed in the previous VPDES permit. Testing for both GRO and DRO ranges aid in determining whether future petroleum contamination, if present, may be attributed to either or both gasoline and/or non-gasoline product.

pH:
The pH limit is derived from 9VAC25-260-50 (Water Quality Standards) for discharges to Class II or Class III waters in the Piedmont and Coastal Zones.

Total Organic Carbon (TOC):
The limitation for TOC is carried over from the 2008 permit reissuance to the 2013 permit reissuance because the permittee has previously demonstrated compliance with this limit and therefore it cannot be removed due to antibacksliding policies. The TOC limitation originates from previous agency guidance for permitting of Bulk Oil Storage Facilities (Permit Manual, issued July 1995, Appendix IN – Industrial, Part F.2.d). TOC is also required to be monitored for discharges associated with hydrostatic testing in the *General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests (VAG83)*, and serves as an indicator parameter for non-petroleum organic substances (see GM08-2006 Fact Sheet, Pg. 17).

Whole Effluent Toxicity (WET) Monitoring:
Whole Effluent Toxicity monitoring is being carried forward from the 2008 to the 2013 permit cycle in accordance with 9VAC25-31-210 and 220 I. of the VPDES Permit Regulation and Best Professional Judgment. *The acute endpoint LC_{50} of 16.7% is being continued based on the dilution factor of 20 which was established in the Cormix mixing model that was discussed in the Water Quality Criteria section above and Attachment No. 1*. The acute toxicity monitoring endpoint is calculated by using acute criterion of (0.3 TU_a) multiplied by the dilution factor of (20) which equals 6 TU_a or (100/6 TU_a) equals 16.7%. The 48 Hour Static Acute test shall use the *Ceriodaphnia dubia* species as the test organism and the test shall be conducted annually in accordance with the schedule presented in Part I.D.4. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR136.3. A summary of the WET test results for the current permit and a copy of the spreadsheet (*WETLIM10*) normally used for the determination of WET test endpoints are found in *Attachment No. 8*.

17. Antibacksliding Statement:

Compliance with antibacksliding provisions of the Permit Regulation (9VAC25-31-220.l) have been achieved since no less stringent limitations are contained in this permit.

18. Compliance Schedules:

No schedules of compliance are included in this permit.

19. Special Conditions:

Part I. B. - Compliance Reporting Under part I. A.:
Rationale: Authorized by VPDES Permit Regulation, 9VAC25-31-190 J 4 and 220 I. This condition is necessary when pollutants are monitored by the permittee and a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values. (Part I.B)

Part I. C. - Other Requirements and Special Conditions:
a. *O&M Manual Requirement*:

Rationale: Required by Code of Virginia § 62.1-44.16; VPDES Permit Regulation, 9VAC25-31-190 E, and 40 CFR 122.41(e). These require proper operation and maintenance of the permitted facility. Compliance with an approved O&M manual ensures this. (Part I.C.1)

b. *Materials Handling/Storage*:
Rationale: 9VAC25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorizes the Board to regulate the discharge of industrial waste or other waste. (Part I.C.2)

c. *Notification Levels*:
Rationale: Required by VPDES Permit Regulation, 9VAC25-31-200 A for all manufacturing, commercial, mining, and silvicultural dischargers. (Part I.C.3)

d. *Reopeners*:
Rationale: Section 303(d) of the Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The re-opener recognizes that, according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan, or other wasteload allocation prepared under section 303 of the Act. 9 VAC2 25-40-70.A authorizes DEQ to include technology-based annual concentration limits in the permits of facilities that have installed nutrient control equipment, whether by new construction, expansion or upgrade. 9 VAC 25-31-390.A authorizes DEQ to modify VPDES permits to promulgate amended water quality standards. (Part I.C.4)

e. *Closure Plan*:
Rationale: Code of Virginia §62.1-44.16 of State Water control Law. This condition establishes the requirement to submit a closure plan for the wastewater treatment facility if the treatment facility is being replaced or is expected to close. (Part I.C.5)

f. *Oil Storage Ground Water Monitoring Reopener*:
Rationale: Facilities with greater than 1,000,000 gallons of regulated aboveground petroleum storage are required to monitor ground water under the Facility and Aboveground Storage Tank Regulation 9VAC25-91. Where potential exists for ground water pollution and that regulation does not require monitoring, the VPDES permit may under Code of Virginia §62.1-44.21. (Part I.C.6)

g. *Pump and Haul Tank Bottom Water*:
Rationale: Best Professional Judgment. This special condition provides an option for bulk oil storage facilities to dispose of any accumulated tank bottom waters in the tanks due to water in truck, pipeline, and tanker receipts and from condensation within the tanks. This special condition will ensure tank bottom waters are not improperly discharged and tank bottom sludge are transferred and disposed of in an approved fashion. (Part I.C.7)

h. *Cooling Water and Boiler Additives*:
Rationale: Best Professional Judgment. This special condition was developed during a previous permit cycle to address any cooling water and boiler water additives. (VAC25-196, et seq and Guidance Memorandum 03-2009 were consulted for use at this facility due to the possibility of chemicals related to these cooling water/boiler activities being in the waste stream. (Part I.C.8)

i. *Concept Engineering Report:*
Rationale: §62.1-44.16 of the Code of Virginia requires industrial facilities to obtain DEQ approval for proposed discharges of industrial wastewater. A CER means a document setting forth preliminary concepts or basic information for the design of industrial wastewater treatment facilities and the supporting calculations for sizing the treatment operations. (Part I.C.9)

Part I. D. Whole Effluent Toxicity Testing (WET):

Rationale: VPDES Permit Regulation, 9VAC25-31-210 and 220 I, requires monitoring in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. (Part I.D)

Part II. Conditions Applicable to All VPDES Permits:

Rationale: VPDES Permit Regulation, 9VAC25-31-190 requires all VPDES Permits. (Part II)

20. NPDES Permit Rating Work Sheet:

The PRO staff completed the NPDES Permit Rating Worksheet during the previous permit cycle and determined that the facility does not meet the criteria to be classified as a major source. The completed worksheet has been reviewed and remains valid because the toxic pollutant potential, stream flows and public health impacts have not changed since they were evaluated in the previous permit cycle. Total Score: 78. *See Attachment No. 9* for details of the worksheet.

21. Changes to Permit:

Below is a listing of the changes proposed to the existing VPDES permit VA0058378, Part I and Part II.

Cover Page:

- The cover page has been updated to reflect the current language in the *VPDES Permit Manual, Section IN-1 page 13, updated 8/25/2011*.
- The receiving stream special standards has been changed from "a,bb" to "bb" in accordance with the current Water Quality Standards dated January 6, 2011.

Part I.A. Effluent Limitations and Monitoring Requirement:

- Language was added referencing estimated flow measurement methods, quantification levels and compliance determinations for TPH and WET Monitoring requirements.

Part I.B. – Compliance Reporting:

Part I.B. now only addresses Compliance Reporting. All the Other Requirements and Special Conditions were moved to Part I.C.

- *B.2. -* Compliance Reporting: Revised to include additional language regarding quantification levels, daily maximum, single datum and significant digits per the *VPDES Permit Manual, Section IN-3 page 14, updated 8/25/2011*.

Part I.C. – Other Requirements and Special Conditions:

Part I.C. now addresses Other Requirements and Special Conditions which were contained in Part I.B. of the current permit.

- *C.1. -* *O&M Manual*: Revised in accordance with changes made by the Office of VPDES Permits after including comments from PRO staff per email dated April 03, 2012 from Elleanore Daub.
- *C.2 –* *Materials Handling/Storage:* Revised to reflect current language per the VPDES Permit Manual, Section IN-3 page 6, updated 1/27/2010.
- C.3. - *Notification Levels:* No change from the existing permit.
- *C.4*. - *Reopeners:* Subsections b. and c. added consistent with Guidance Memo 07-2008, Amendment 2, page 17. The 2013 fact sheet (Item 25) addresses the bacterial TMDL for the James River and the EPA approval date and provides standard boilerplate language describing the TMDL and its implementation in the Chesapeake Bay watershed.
- *C.*5. - *Closure Plan*: Revised to reflect current language per the VPDES Permit Manual, Section IN-3 page 19, and 5/29/12 PRO staff decisions.

- *C*.6. - *Oil Storage Ground Water Monitoring Reopener*: No change from the existing permit.
- *C*.7. - *Pump and Haul Tank Bottom Waters*: No change from the existing permit.
- *C*.8. - *Cooling Water Boiler Additives:* No change from the existing permit.
- *C*.9 *Concept Engineering Report*: A new condition, added in accordance with PRO staff decision, 6/29/10, 1989 CER staff guidance, and Guidance Memo 09-2008, Amendment 2, page 11.

- *Hydrostatic Testing Requirements*: Hydrostatic test discharge requirements have been deleted from this permit. Authorization to discharge hydrostatic test waters may be granted by DEQ with coverage under 9VAC25-120 et seq. (*General VPDES Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests*). On ?/??/2013, the permittee affirmed via email that obtaining coverage under this general permit for hydrostatic test discharges is acceptable and preferred to the individual permit.

Part I.D. – Whole Effluent Toxicity (WET) Monitoring:

- Whole Effluent Toxicity monitoring language was updated. References to retesting were deleted and replaced with language stating that the data will be evaluated for reasonable potential and the permit may be modified, or alternatively, revoked and reissued to include a WET limit if deemed necessary by the Department. The testing schedule was also updated to reflect new submittal and compliance dates.

Part II - Conditions Applicable to All VPDES Permits:

- A.4. – Added VELAP special condition which requires samples to be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Laboratories per VPDES Permit Manual IN-1, A.4, page 15.

22. Variances/Alternate Limits or Conditions:

None.

23. Public Notice Information required by 9VAC25-31-280 B:

Comment period: Start Date:
End Date:
Published Dates:
Name of Newspaper: *Style Weekly*

All pertinent information is on file and may be inspected or copied by contacting Jeremy Kazio at:

Virginia Department of Environmental Quality (DEQ)
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060-6296

Telephone Number 804/527-5044
Facsimile Number 804/527-5106
Email Jeremy.Kazio@deq.virginia.gov

DEQ accepts comments and requests for public hearing by hand-delivery, e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requestor, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there

are substantial, disputed issues relevant to the permit. The public may review the draft permit and application at the DEQ Piedmont Regional Office by appointment or may request copies of the documents from the contact person listed above.

24. Additional Comments:

a. Previous Board Action:

None.

b. Staff Comments:

- *Storm Water Requirements:* The permittee's SIC Code (4226) is included under Sector P of DEQ's industrial storm water management requirements. However, only those facilities within this sector which conduct vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication, and/or equipment cleaning operations are required to manage storm water runoff under the industrial storm water program. This permittee does not practice any vehicle maintenance or fueling or equipment cleaning onsite, and therefore, the facility is not subject to the industrial storm water management requirements.

  Previously, this facility had two outfalls: one stormwater and one process water. These outfalls were later combined into one outfall to address toxicity concerns; discharges from the one remaining outfall consist of commingled process and storm waters.

  At the request of the permittee, the majority of the proposed stormwater language was removed from the draft permit in the 2003 permit cycle. Justifications for the removal included the nature and consistency of the discharge (i.e. a controlled, commingled discharge). Additionally, many of the practices required in the stormwater language were already incorporated into the O&M Manual, reviewed and approved by DEQ staff. Only the Sector Specific Stormwater Pollution Prevention Plan language, specific to the Asphalt Emulsion process, was retained in the 2003 reissuance.

  DEQ staff believe this effluent is best characterized as a commingled process water discharge and should be treated as such; therefore, the remaining stormwater plan requirements have been removed from the permit as these Best Management Practices are adequately addressed in the current O&M Manual.

- *Hydrostatic Testing Requirements:* The permittee may handle, store, and distribute a variety of gasoline and non-gasoline petroleum substances at this facility. In addition to being required by law to conduct hydrostatic testing on their AST's, the permittee may need to conduct hydrostatic testing on pipelines or tanks when the products are switched due to density differences between products. DEQ staff contacted the permittee by email on ?/??/2013 and inquired whether the permittee preferred to keep hydrostatic testing requirements in their individual permit, or if they'd prefer the option to obtain general permit coverage under 9VAC25-120 et.seq. (*General VPDES Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests*) for authorization to discharge hydrostatic test waters. The permittee responded by email dated ?/??/2013 indicating that they'd prefer to obtain coverage under the general permit.

- *Planning Concurrence*: The discharge is in conformance with the existing planning documents for the area.

- *Local Government Notification of Public Notice:* A copy of the public notice for the 2013 permit reissuance was mailed to the Richmond Regional Planning District Commission (RRPDC), the Richmond City Mayor, and the President of the Richmond City Council on ??/??/2013.

- *T&E Coordination*: Threatened and Endangered Species Coordination with the VDGIF and the DCR for this facility is not required per the 2013 VPDES listing found at DEQnet Documents and Forms section.

- *Monitoring Frequency Reduction*: A reduction in the frequency of monitoring was not considered for this facility due to the large volumes of petroleum products stored at the site. Once per month monitoring is appropriate for the size and type of the facility and consistent with the monitoring requirements contained in similar permits for bulk oil storage facilities.

- *VDH-Office of Drinking Water:* The Virginia Department of Health – Office of Drinking Water indicated no objection to the existing discharge by letter dated January 31, 2013. There are no public water supply intakes within 15 miles downstream of the discharge.

- *E-DMR Status*: The permittee is an e-DMR participant beginning 11/09/2010.

- *Environmental Excellence Program*: The permittee does not participate in the Virginia Environmental Excellence Program (VEEP).

- *EPA Comments*: EPA has waived the right to comment and/or object to the adequacy of the permit.

- *Permit Fees*: The permittee is current on payment of their annual maintenance fee ($4,419.00) last paid on September 25, 2012.

c. Additional Comments:

- Previous SWCB Action: None

- Attachments to Fact Sheet:

Attachment No. 1 –	Flow Frequency Determination	
Attachment No. 2 –	Schematic Diagram	
Attachment No. 3 –	Location Map	
Attachment No. 4 –	Ambient Water Quality Data & 303(d) Fact	Sheets
Attachment No. 5 -	VPDES Wastewater Facility Inspection Report	
Attachment No. 6	- Effluent Water Quality Data	
Attachment No. 7	- Water Quality/Wasteload Allocation Analysis	
Attachment No. 8	- WET Summary Test Results and WETLIM10.xls	
Attachment No. 9	- NPDES Permit Rating Work Sheet	

25. 303(d) Listed Segments (TMDL):

During the 2010 305(b)/303(d) Water Quality Assessment, the segment was assessed as a Category 5A water. The Aquatic Life Use is impaired due to inadequate submerged aquatic vegetation (SAV), exceedance of the chlorophyll a criteria, and violation of the 30-day mean Open Water summer dissolved oxygen criteria. The Recreation Use is impaired due to E. coli. The Fish Consumption Use is impaired due to a VDH fish advisory for PCBs; in addition, mercury and kepone are considered non-impairing observed effects. The Wildlife Use is fully supporting.

The bacterial TMDL for the James River was approved by the EPA on 11/4/2010. Kinder Morgan Richmond 2 was included in the TMDL; however it was determined that they do not need a wasteload allocation because their current permit does not require fecal coliform control. Please see the Flow Frequency and 303(d) Status Determination memorandum in *Attachment No. 1*.

a. *Chesapeake Bay TMDL:* This facility discharges directly to the James River in the Chesapeake Bay watershed in segment JMSTF2. The receiving stream has been addressed in the Chesapeake Bay TMDL, approved by EPA on December 29, 2010. The TMDL addresses dissolved oxygen (DO), chlorophyll a, and submerged aquatic vegetation (SAV) impairments in the main stem Chesapeake Bay and its tidal tributaries by establishing non-point source load allocations (LAs) and point-source waste load allocations (WLAs) for Total Nitrogen (TN), Total Phosphorus (TP) and Total Suspended Solids (TSS) to meet applicable Virginia Water Quality Standards contained in 9VAC25-260-185.

Implementation of the Chesapeake Bay TDML is currently accomplished in accordance with the Commonwealth of Virginia's Phase I Watershed Implementation Plan (WIP), approved by EPA on December 29, 2010. The approved WIP recognizes the "General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed of Virginia" (9VAC25-820) as controlling the nutrient allocations for non-significant Chesapeake Bay dischargers. The approved WIP states that for non-significant Municipal and Industrial facilities, nutrient WLAs are to be consistent with Code of Virginia procedures, which set baseline WLAs to 2005 permitted design capacity nutrient load levels. In accordance with the WIP, TN and TP WLAs for non-significant facilities are considered aggregate allocations and will not be included in individual permits. The WIP also considers TSS WLAs for non-significant facilities to be aggregate allocations, but TSS limits are to be included in individual VPDES permits in conformance with the technology-based requirements of the Clean Water Act. The discharge from this facility's industrial processes is not governed by any Parts of Title 40, Chapter I, Subchapter N (Federal Effluent Guidelines) of the Code of Federal Regulations, and therefore, a technology-based TSS limitation is not required. However, the WIP recognizes that so long as the aggregated TSS permitted loads for all dischargers is less than the aggregated TSS load in the WIP, the individual permit will be consistent with the TMDL. The discharge from this facility was included in the JMSTF2 aggregated TSS permitted load.

40 CFR 122.44(d)(1)(vii)(B) requires permits to be written with effluent limits necessary to meet water quality standards and to be consistent with the assumptions and requirements of applicable WLAs. This facility is classified as a Non-significant Chesapeake Bay discharger because it has a permitted

design capacity flow, or equivalent load, of less than 100,000 gallons per day into tidal waters. This facility has not made application for a new or expanded discharge since 2005. It is therefore covered by rule under the 9VAC25-820 regulation. In accordance with the WIP, TN and TP load limits are not included in this individual permit, but are consistent with the TMDL because the current nutrient loads are in conformance with the facility's 2005 permitted design capacity loads.

Implementation of the full Chesapeake Bay WIP, including GP reductions combined with actions proposed in other source sectors, is expected to adequately address ambient conditions such that the proposed effluent limits of this individual permit are consistent with the Chesapeake Bay TMDL, and will not cause an impairment or observed violation of the standards for DO, chlorophyll a, or SAV as required by 9VAC25-260-185. Additionally, effluent data submitted with the application for biochemical oxygen demand (< 60 mg/L) and chemical oxygen demand 23.3 mg/L) indicates that this facility's discharge does not contribute to a significant oxygen demand on the receiving stream.

b. *E.coli:* The permittee submitted a single data point for E.coli reflecting <1 CFU/100mL. The source of effluent discharged from this facility is storm water runoff from the AST containment berm, loading racks, and other no-rack areas which contains tanks. The runoff is collected at these locations and is directed to an oil/water separator to a sedimentation basin, then released to the James River via outfall 001. There are no processes at this facility which contribute bacteria to the effluent, and all sanitary wastes are directed to public sewer. The containment berm and the retention pond have the potential for exposure to wildlife activity. Wildlife contribution is already accounted for in the non-point source load allocation in the abovementioned bacterial TMDL, and therefore, a permit limitation for E.coli is not necessary.

c. *Polychlorinated Biphenyl's (PCB's)*: The permittee submitted effluent data for Total PCB's as required by Attachment A using the proper test method (608). Total PCB's were reported less than the DEQ recommended QL (<1.0 µg/L). Therefore, this facility's discharge is not expected to cause or contribute to the PCB fish consumption impairment.